A glimpse at more than 50 years of delivering capabilities to the warfighter

2010
- Engine Rotor Life Extension

2000
- Microelectromechanical Systems (MEMS) for Inertial Measurement Units (IMU)
- Enhanced Yield Solar Cells
- Lean Aerospace Initiative (LAI) Lean Transformation

1990
- Titanium Metal Matrix Composites Engine Components
- Automated Mfg of Advanced Composite Structures
- "Retirement for Cause" Engine Inspection
- Environmentally Safe Paint Removal

1980
- Integrated Definition (IDEF) Architecture
- Interim Graphics Exchange Specifications (IGES)
- Integrated Computer Aided Design (ICAD)

1970
- 3-D Non-destructive Inspection

1960
- "Net Shape" Manufacturing
- Automatically Programmed Machine Tool

1950
- Numerically Controlled (NC) Machine Tool

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AF ManTech
UNITED STATES AIR FORCE

Shaping the Industrial Base for AF Capabilities

Air Force Manufacturing Technology

(AF ManTech)

AF ManTech plans, manages and advocates programs providing advanced manufacturing processes, techniques and technologies for timely, high quality, economical production and sustainment of Air Force systems. A deliberate planning process based on industrial base assessments and high priority Air Force and DoD requirements is followed to pursue programs that will benefit the warfighter the most. AF ManTech has four major investment thrusts, including: **Manufacturing Readiness**; **Program Executive Office (PEO) Affordability/ Producibility**; **Sustainment**; and **Industry Partnerships**.
Requirements developed in each of these thrusts drive activities across all Air Force domains:

- **Aeronautical**
- **Armament**
- **Directed Energy Systems**
- **Command & Control, Intelligence, Surveillance & Reconnaissance (C2ISR) Electronics**
- **Space Systems**

AF ManTech's Investment Strategy

Manufacturing Readiness
Accelerate technology transition from laboratories to programs and reduce acquisition program risk

- Assess ATD and ACAT program manufacturing readiness / risk in partnership with program managers
- Identify cross-cutting manufacturing issues
- Develop and demonstrate manufacturing processes for new technologies
- Mature Manufacturing Readiness Levels (MRL) in parallel with Technology Readiness Levels (TRL)

PEO Affordability/Producibility
Provide new capability to warfighter and reduce cost and schedule growth of acquisition programs

- Improve existing manufacturing processes
- Establish new manufacturing processes
- Exploit advanced business practices
- Expedite transition of emerging technology
- Enhance supplier manufacturing processes

Sustainment
Improve responsiveness and manufacturing capability of depots and supplier base

- Establish advanced manufacturing technology at Original Equipment Manufacturers (OEMs) and suppliers
- Reduce depot cycle times and costs

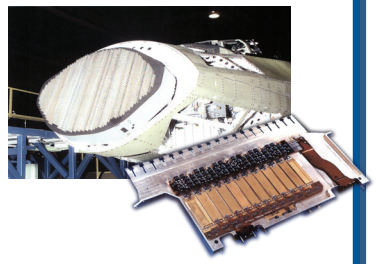
Industry Partnerships
Partner with industry OEMs and suppliers to implement revolutionary manufacturing technologies

- Accelerate next generation manufacturing processes
- Develop pervasive manufacturing technologies
- Create new manufacturing processes

ManTech Portfolio Highlights

Manufacturing Readiness Assessments (MRAs)
Assessing manufacturing readiness and risks within the context of technology readiness, and end product availability and cost

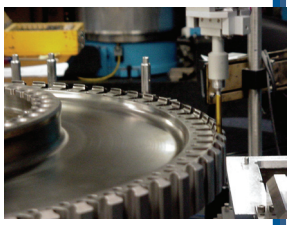
Active Electronically Scanned Array (AESA) Radar
Develop manufacturing improvements to critical system components of current and next generation AESA systems



Datalink Components
Attack manufacturing cost and availability drivers for net-centric air and space warfare

Affordable Stealth-Enabling Technologies
Partner with industry to establish robust, affordable, and reliable current and next generation manufacturing processes for stealth technologies

Engine Rotor Life Extension (ERLE)
Develop new inspection and life prediction processes to certify life extension of high value turbine engine parts



Purchase and Supply Chain Management (PSCM)
Transition technologies and process improvement into supply base and depots